THE VETERINARY RECORD

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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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A CURIOUS ANTHRAX ORDER.

Every veterinary surgeon should carefully read the new Anthrax Order, 1910, which comes into force on January 1st next. Its chief features are:—

Compulsory notice of the existence of a "diseased or suspected animal" to a policeman.

Then the policeman must give notice to an inspector of the local authority, *i.e.* usually to another policeman.

The second policeman (Inspector) must go to the place where the "diseased or suspected animal" is and serve a notice detaining all animals which have been near or in contact with the suspect.

Then the local authority must send a veterinary surgeon to examine and report. If he forms an opinion that the case is not one of anthrax, then all bother ceases. If, however, he has any doubt, he shall report the case to his local authority as one of "suspected anthrax," and he shall send specimens of the blood or other fluids to the Board of Agriculture. He has also to fill up a form containing a long list of questions, give his own diagnosis, and after burying or cremating the carcase, wait.

In course of time the Board of Agriculture will forward their opinion to the local authority, and if it agrees with that of the veterinary inspector he may return the case as one of anthrax.

A diseased or "suspected" carcase shall not be buried or destroyed otherwise than by the local authority. In no case shall the skin of the carcase be cut, nor shall anything be done to cause the effusion of blood, except by a veterinary surgeon acting under the direction of the local authority—provided that nothing in this paragraph shall prevent a veterinary surgeon on behalf of the owner of the carcase from taking a sample of the blood or other fluid or tissue from the carcase for the purpose of microscopical or cultural examination in any case in which neither the history of the case nor any external lesions in the carcase indicate the existence of anthrax.

This proviso prevents such a charge as was not long ago brought against a veterinary practitioner for removal of an ear from a carcase for microscopical examination. But there are other dangers for veterinary surgeons. The diagnosis of anthrax in the horse during life is in most cases impossible, and what will happen to the man who ventures on a post-mortem? In other farm animals the first sign of anything wrong is given by finding the animal dead.

Does the Board really mean that every animal found dead is to be presumed to be anthrax and left untouched until a microscopic examination of the blood is made? Are there no deaths due to accidental poisoning by yew, laurel, or bracken? Is malicious poisoning an altogether unheard of thing?

An owner of cattle or horses finds in the morning an animal dead which was not noticed to be ill the day before. His only safe course is to give notice to a policeman. If he does not, and the case is found to be one of anthrax, he most likely will be prosecuted. Perhaps he sends for his own V.S., but that expert dare do nothing save examine microscopically the blood. The notice to the police prevents any post-mortem, and the veterinary inspector comes on the scene to bury or cremate the carcase, and thus ensure that no further discovery of the cause of death can be obtained. The country practitioner we fancy will make few post-mortems in future; he will be thoroughly controlled by the veterinary inspector.

But the veterinary inspector, in his turn, is bound and fettered even more securely. He is graciously permitted to form an opinion; he is even obliged to give one to the Board; but if his diagnosis is not approved in London he is treated as an ignoramus, and a certificate sent to his employers saying he is wrong.

No one disputes that an inspector may be wrong. But is the Board only omniscient? They or their officers examine the slides smeared with blood, and then a law like that of the Medes and Persians comes into force—if the Board say it is anthrax, it is; if the Board say it is not anthrax, it is not.

Now with every respect for the Board's officers, and a large belief in their skill, we must ask if it is not true that sometimes no anthrax bacilli are found in the fluids of an undoubted case of anthrax?

To limit the diagnosis of anthrax to a mere microscopic examination is raising the art of bacteriology to an eminence it has not yet reached in practical estimation. To deny to veterinary inspectors the ability to see anthrax bacilli as well as the Board's officers is an assumption which can only be upheld by the inference that local inspectors are far behind the times—in fact, incompetent.

Probably the veterinary inspectors have become so indifferent to being trusted, after a long experience of swine fever and the procedure required by the Board, that they may accept the new Anthrax Order lying down. Is there anywhere in other State departments such a distrust displayed of expert officers as is regularly displayed by the Board of Agriculture? No doubt some wrong diagnoses

are discovered by the Board, but how many wrong diagnoses are made by the Board itself—and with what results. Scores of cases of swine-fever have been diagnosed by local inspectors which were only approved by the Board after two or three examinations of pigs from the same lot. During the days or weeks of delay so caused the disease was spreading, and the owner had to face the loss unaided and without compensation.

It would be the height of folly to decry the use of the microscope or to disparage work done in pathological laboratories. But it is quite as dangerous to treat with opprobrium the clinical observations of experienced men.

It is a curious commentary on clinical and laboratory work to note that every disease that has been stamped-out in the country owed nothing to bacteriology but all to clinical skill. Neither in Cattle-plague, Pleuro-pneumonia, Foot-and-mouth disease, nor in Rabies has science yet discovered the causal organism.

The new Anthrax Order is a degradation of the veterinary experts employed by local authorities, and it is a retrograde move in that it strengthens an approach to centralism and officialism, instead of following the trend of ideas in the country in favour of trusting the local authorities.

Further, the Order is illogical. It accepts without question the opinion of a veterinary inspector who says positively that the case is not one of anthrax. It declines to accept his opinion when he says it is anthrax.

The only explanation that occurs to us of this illogical position is that the Board desires not so much the reduction of disease as the reduction of returns to the Board. They make it easy not to return, and they allow no return except that they may approve.

Whatever the motive of the Board may be, the result of the Order may be safely anticipated—there will be a big reduction of returns quite unaffected by the prevalence of disease. The new Order does nothing more than the old Order to control anthrax, but it is well framed to control the returns.

The Director-General to his Colleagues.

A correspondent sends us a letter which the late Director-General of the A.V.S. circulated to his colleagues on the eve of his retirement, and which is distinctly deserving of publication beyond military circles. As the first sentence shows, it is an unofficial document—simply a personal expression of opinion upon the past and future of the Army Veterinary Service. Remembering by whom and under what circumstances it was written, this farewell address is a very moving one. Its pervading note of high idealism tempered by clear recognition of realities give it the pathetic suggestiveness which so often marks the well-considered writing of a man in advance of his time. But our main reason for publishing it, and for calling attention to it here, is that it contains so much that is practically applicable to the whole profession. Such subjects as the status of the veterinary profession in civilisation, and the necessity for constant individual professional self-improvement, may be mentioned as illustrations that what is here written for Army veterinarians may be applied also to civil ones. Our difficulties, our disabilities, and some of our faults are indicated; the path towards improvement is indicated also; and it is recognised that that improvement must be slow.

The address may be taken as a sermon to veterinary surgeons by a preacher who has always striven to live up to his own exalted ideal. As such, we commend it to those of our readers likely to appreciate it—those who are capable of themselves attempting to aid in the advancement of the profession. We judge that it was deliberately written as an incentive to that end; and it was written at an epoch in a career which has been devoted to the same aim. We believe it will bear much invisible, and perhaps some visible, fruit in future years. It will be the more likely to do so if its study is accompanied by a consideration of the life-work which has preceded it, and of which it forms a fitting expression.

UNUSUAL CASES OF MILK FEVER.

The account given in last week's *Veterinary Record* of an interesting milk fever case reported by Dr. Schaffer, a Bavarian veterinary surgeon, has induced me to record the two most unusual cases of that disease that have occurred in my practice.

On August 14th last year I was called in the morning to see a black polled cow, the owner saying that he did not know what to make of her. She had gone dry a few weeks before; was due to have her second calf in a fortnight, and was a rich and heavy milker. She had been found down and unable to rise, and on my arrival was pitching herself about in the typical manner of a cow in the delirious stage of milk fever. Having emptied the bladder, I injected the udder with air till as hard as a football; ligatured the teats with tapes, to be left on for two hours; massaged, or rather bruised, the four quarters with my shut fists; propped her up in the natural position, and gave the usual instructions.

On visiting again next morning the cow was on her legs and in perfect health. The excitement had passed off about half an hour after my departure the previous morning, and she got up sometime in the afternoon.

She calved a month later and everything took a normal course. Meeting the owner one day shortly afterwards, he asked me as to whether I would advise him to keep the cow, remarking that if I felt confident of curing her should she again get milk fever he would not dispose of her, as she was the best he ever owned. I told him I felt confident of treating her successfully, and he decided to keep her. She calved again on the 24th of last month, was down with milk fever next day, and with the usual treatment was on her legs again on the following day.

The next case resembles somewhat that reported by Dr. Schaffer, except that it had a happy ending.

May 26th, 1910. The subject was a large red and white cow, six years old. She had calved by herself in the field during the night, and was found unable to rise in the morning. At times she looked wildly around her, otherwise she was normal in every way. The usual treatment was adopted, and she got on her legs about 4 o'clock in the afternoon and was driven to a stable not far away. Next morning she was found lying prostrate on her side, but showing no excitement. Fæces were normal, but she had passed no water since the previous night. I therefore emptied the bladder with the catheter, withdrawing about a gallon and a half of urine.

After treatment as in the foregoing case, she got up in five hours, and maintained the improvement till the following afternoon, when she had her second relapse.

On this occasion I took almost two and a half gallons of water from the bladder, and treated her as before. She got up in three hours and, as they say, never looked back again.

L. M. MAGEE.

Navan, Co. Meath.

FURTHER REMARKS ON A NEW METHOD OF OPERATING FOR ROARING.

Having obtained the larynx of a horse which was destroyed for incurable lameness seven weeks after I performed on it the operation for roaring, which I described in *The Veterinary Record* about five weeks ago, I am in a position to offer further remarks regarding the local results of this method of operation. I partially stripped one ventricle through the trephine opening in the thyroid cartilage, removing only as much membrane as was protruding between the two bellies of the thyro-arytenoid muscle, and I stripped the whole of the ventricle on the other side through the crico-thyroid opening. I think it may be said that both vocal cords are equally drawn out, and the vocal cord on the side done by the new method is decidedly more drawn out at the point where it is denuded of mucous membrane than the other vocal cord in the corresponding point. There is no trace of excessive granulations round the trephine opening in the cartilage. The older the cicatrix in the cartilage the greater must be the contraction and pulling outwards of the vocal cord, whereas the cicatricial contraction in the crico-thyroid ligament must tend to draw the two wings of the thyroid cartilage, and thus the two vocal cords together, thus diminishing the lumen of the larynx. If both sides of the larynx are done through trephine openings, I think the horse is less likely to suffer from dyspnœa after the operation, as they afford patent outlets at the points where œdema is likely to occur—that is, to the outer aspect of the vocal cords.

Another point is, the rigidity of the lateral walls of the larynx is diminished at the trephined places, allowing some dilatation at these points, which may tend also to increase the lumen of the larynx and the volume of air passing through it.

J. J. O'CONNOR, M.R.C.V.S.

ACUTE LAMINITIS.—UNUSUAL CASE.

Subject.—Cart mare in good condition.

History.—She had been out at grass for some weeks, had done no work at all during that time, and had no corn. Fetched in first thing on Monday morning, October 17th, for inspection by prospective purchaser. She was then alright, I was told. She was given a feed of old oats, bran, and chaff. I was called, and got there at 12.30 midday. The gentleman mentioned had seen the mare, but could not buy her as she was not right. She had a "chill on the kidneys" he said, and he had taken her temperature.

Symptoms.—Sweating a good deal. Temperature 101·2, blowing as though there were chest disease, and had an anxious expression. I had her walked a few yards, she showed the stiffness which was very characteristic of acute laminitis, and such was the

Diagnosis.—The owner asked me if it were possible, as the mare had had no corn, no work, and had been out in the field the whole time. I reminded him that the symptoms were positive, but the case was unusual with such a history.

Treatment.—Shoes to be removed at once. Warm bran poultices, and renewed night and morning, ʒv. dose of aloes, and removal of patient to a loose-box without delay. The smith had considerable difficulty in getting the shoes off when he came four hours later. Chilled water and mashes.

Course of Disease.—Next morning there was appreciable improvement. No sweating, and temperature normal.

Oct. 19.—About same. Aloes had little effect, so ʒv. more was given. Poultices removed from hind feet. Ordered half-an-hour's exercise in the field, after which the fore poultices were to be put on again.

Oct. 20.—Second physic ball had acted well. Advised exercise again as on previous day, and then poultices replaced on fore feet.

Oct. 21.—Mare shod with wide-webbed, full-length shoe, not rocked. She went sound, and trotted away quite naturally.

W. E. B.

ABSTRACTS FROM FOREIGN JOURNALS.

TRICHORRHEXIS NODOSA.

Trichorrhexis nodosa is an affection of the hairs which attacks all species of animals possessing long and rigid hairs, such as those of the mane and tail of horses or of the human head, beard, and moustache. It is characterised by the development of ashy-grey spots of a nodular aspect upon the

surface of the stem of the hair; and at the level of these nodular spots the hair breaks off, leaving patches of broken hairs similar in appearance to patches of trycophytosis.

In human medicine, this disease has undergone much study, not only clinically, but also and especially as regards its etiology. Nevertheless, its etiology is still unsettled. Some believe it to be a trophoneurosis, but against this view it may be said that the affection does not limit itself to certain nervous regions. Others consider it a constitutional malady, or a defect in the nutrition of the hair. Sabouraud upholds a mechanical theory of its production, believing that it may be caused by rubbing, mechanical pressure, the use of curling tongs, and similar factors. Finally, several observers have described micro-organisms in connection with the affection. Micrococci, and a bacillus, have been thus supposed to cause trichorrhexis nodosa; and Kreibeck believes that in all cases the microbes must develope in the hair follicles, seeing that when the affected hair is shaved off the new hair continues to present nodules. The affection, however, has never been reproduced experimentally.

In recent years several veterinarians have observed trichorrhexis nodosa in animals. Some have done so under circumstances which suggested that the disease is a contagious one; Trofino, for instance, found it in two-thirds of the horses of a brigade of artillery. Poenaro and Udrisky, of Bucharest, now describe the following case in a single horse.

The malady was of some months standing, and affected the tail only. The hair had been falling from the tail, leaving patches resembling those of trycophytosis. When the hair was closely examined, its surface showed ashy spots at which the hair appeared thickened, and which resembled knots. The hair being *unravelled* at these places, appeared larger, and the authors compare it to a string or cord, the component threads of which had become loosened or untwisted at certain points.

The authors microscopically examined affected hairs, after treating with a warm 10 per cent. solution of caustic potash; and describe their histological condition as follows.

The delicate scale-like cells of the *hair cuticle* were partially desquamated. The cells of the *cortical substance of the hair*, which are fusiform, and in normal conditions are intimately united together, were disassociated and partially deprived of pigmentary material. The cells of the *medulla of the hair*, which under physiological conditions are polyhedral and ranged in a cylindrical column in the centre of the hair, were disassociated, decolourised, and to a great extent had disappeared, so that the hair, at the level of the nodular lesions, seemed deprived of its medulla, and formed rather of cortical cells which, by their disassociation, gave the hair the appearance of two brushes applied together, thus augmenting the volume of the hair at the lesion.

The authors also instituted micro-biological experiments. Affected hairs were washed repeatedly in sterilised water, and were then fixed in various culture media. Agar, gelatine, potato, bouillon, etc., were employed as media, and both the ærobic and anærobic methods were followed. Numerous colonies of very varied microbes developed upon these media; sometimes staphylococci, streptococci, or bacilli; at other times a vegetal parasite which in some degree resembled the *Trycophyton tonsurans*. None of these microbes, upon experiment, were able to reproduce the affection; not even when the shaved skin of horses or guinea-pigs was rubbed with the culture. The authors therefore cannot confirm the microbial theory of the disease.

Neither do they support the mechanical theory. They believe if mechanical causes were the producing factors, these would be limited to the grown hair, and that immediately after shaving it, new hair would grow normally. As stated above, the contrary is what happens.

The authors thimk that the principal cause of the condition resides in the regenerative epithelium of the hair, which covers the papilla of the hair-bulb, and causes the growth of hair by the proliferation of its epithelial cells. At certain moments, they think, this regenerative epithelium is ill nourished, the cause of this being anæmia of the vessels of the papilla. It results from this insufficient and abnormal nutrition that the cells of the medulla lose their normal pigmentation, situation, and form; and that the cells of the cortical layer also do not preserve their normal cohesion either with each other or with the medulla. There is therefore a lack of adhesion between the layers which at a later stage in the growth of the hair, facilitates the disassociation of the cells of all its layers.—*(Arhiva Veterinara)*

W. R. C.

THE LATE DIRECTOR-GENERAL A.V.S. TO HIS COLLEAGUES.

In my farewell order to the Army Veterinary Service it was not possible nor desirable to express my views on the present and future of the Corps, but I feel I cannot sever my connection with a branch to which I have been so long devoted without recording the opinions I have formed on these vitally important questions.

It will probably be conceded that ample opportunity has been afforded me during the last 34 years of seeing ourselves under every condition of military service, and thereby of knowing the weak as well as the strong points in our organisation. But what is equally essential is to know the views on these matters held by those outside our body. It is a valuable education to see ourselves as others see us.

Unfortunately, throughout the civilised world all business relations connected with animals are placed on a very low plane; they carry with them a tolerant indifference, from which even those connected with the cure of their diseases and injuries are unable to escape. We cannot control this feeling; we have to live and work under it, but one of the side issues of our life is to favourably influence public opinion in the opposite direction.

All men are not equal in knowledge or intelligence, and never can be. In the small peace numbers represented by our Corps it is essential that every endeavour should be made to obtain something higher than average intelligence, for which reason a competitive examination

followed by a long probationary period is established. But more than this is required. It is the life long education a veterinary officer gives himself which is the only really sound fibre in his knowledge. This education is gained by study and observation.

It is not known to laymen, and sometimes forgotten by ourselves, that to produce a successful physician and surgeon for a dumb patient requires years of close observation, sound common sense, and the application of an acute critical faculty.

Every case we see is a problem in itself, and must be studied. No experience in any branch of the healing art should ever equal in point of exactitude that which is obtainable in veterinary work, for sentiment plays no part, and post-mortem examinations are always obtainable. Knowledge so gained is exact, and can be stored up for future use.

A sound knowledge of horse and animal management generally is an absolutely essential part of our education, and can only be acquired by study and long experience. The layman here meets us on a common platform, and for young officers the position is sometimes one of peculiar difficulty.

The study of history is an invaluable means for obtaining a glimpse into the future. The especial feature of military history is that it repeats itself with wonderful precision. The same doubts and difficulties are always met with, the same rents in the armour of preparedness. This is due to the fact that every man carries his experience to the grave with him, and only a small fraction of it can be presented to others ; further, there is the immutable law that all new life has to begin at the beginning in the matter of experience, as in everything else, and learn as if no other life had preceded it.

Nevertheless, a study of the compaigns of the past is an invaluable education, and veterinary literature during the last thirty years has been rendered quite rich in facts and observations of this kind. It is to be regretted that so many lie hidden away in publications and are not generally accessible. I hope in the future to render them available.

Medical and surgical science is advancing at such a rapid rate that nothing but regular reading will enable us to keep abreast of the times. Who, a few years ago, could have imagined the exactitude to be obtained in diagnosis by utilizing the body as a living test tube? And this is only one line on which advances are taking place.

The amount of reading which can be carried out depends upou the temperament of the individual and not on the facilities afforded. Time can always be found when we have made up our mind to look for it. One hour a day is a modest demand on the time of a man who is paid to give his whole attention and best services to the State, yet this amount of reading conscientiously carried out over a series of years, will leave little to be desired in a general knowledge of the advances made in the realms of medicine and allied subjects.

Whether we be serving in the heart of Africa or of Asia, the veterinary periodicals together with *The British Medical Journal* are obtainable, and are capable of keeping any officer up-to-date. It may not be possible to carry these about, but a summary of important papers can be made, and this summary-making affords a training in exactitude which only writing confers.

If, after a long expeaience as a student, I may be permitted to formulate our professional weakness, I would say it consists of two important features. One is a want of exatitude on points where greater exacitude is possible ; to remedy this we must stimulate the powers of clinical observation, and be ever searching after truth and knowleege, both by study and through the medium of post-mortem enquiry. The other is a deeply rooted conservatism which keeps so many in the narrow path of routine, rather than break ground by trying something new.

Ours is not an exact scienee or it would lose its charm ; it is speculative, and our object should ever be to strive for better results ; yet I regret to record that improved methods of treatment and improved appliances are frequently regarded with distrust.

Too few think for themselves or submit their practice to the salutary lessons taught by introspection. The tendency is to travel along the path of least resistance, which is very human but frequently leads nowhere, and to repeat time after time methods of treatment which careful thought would show fall below the standard necessitated by modern progress and advancement. Study, observation, and aptitude, are the necessary correctives ; with all public servants the two first are acts of duty, the responsibility for the third lies with those who approve their appointment.

Finally, our duty to the State and to the Corps, the welfare of which we have so much at heart, demand that we shall lose no opportunity of demonstrating our utility and superiority in the branch of knowledge with which we are identified. We may be thrust aside, a humiliation to a sensitive spirit, but nevertheless must make a resolute bid for professional recognition by converting those with whom we are associated. We must make them feel that the interest of the State are our interests, that our knowledge is equal to any demand, that no trouble is too great, no hours too long, no exacting military conditions too trying for our fibre. We must show that our objects are professional, that the military body of which we are placed in command is only a means to and end, and not the object of our ambitions —as some outside our service think. We must disarm suspicion, be tolerant of departmental criticism, faithfully loyal to ourselves, thorough in the technical training of our non-commissioned officers and men, wholehearted and enthusiastic in our work, imaginative, liberal in spirit, broad and tolerant in doctrine.

Given these, the future may be looked forward to without apprehension ; nevertheless, changes in public opinion move slowly, and it will take 20 years of good solid work to give us the position which is our due to-day.

The veterinary service lies in the keeping of the officers on the active list, let them jealously guard its reputation.

ZULU WAR, 1879.

VETERINARY DEPARTMENT.

GENERAL REPORT.

(Concluded from p. 294).

Grazing.

As has been before observed, the English horses did not at first take kindly to grazing, neither were they "off saddled" when halted in good grazing ground on the line of march, the equipment being too complicated and cumbrous to admit of its being readily replaced in the event of the sudden appearance of the enemy. The Irregular Corps with their simple trapping were able to "off saddle," and had in this respect a great advantage over the English cavalry. It may, however, be here stated that no opportunity for grazing horses was lost ; when on the line of march, when on a reconnaissance, when scouting, advantage was taken of even a ten minutes' halt to dismount the men and graze the horses, aud whenever practicable the Colonial horses were turned loose, and grazed in mobs or troops, their early experience enabled this to be done with safety, and in

no instance did stampeding or inconvenience result from its adoption.

Water, and Watering.

As horses drink several gallons of water every day it can be readily understood that the daily ingestion of such a quantity of water would, if unwholesome, speedily produce disease; it is therefore most essential that horses should not have access to water fouled by decomposing animal or vegetable matter. It is equally essential that all animals employed in the field should be allowed to drink as often, and as freely as they are inclined to, no untoward results need be apprehended. There is a prejudice against horses being permitted to drink as much as they like; a prejudice born of ignorance, and, on the part of grooms, of idleness and apathy, as they well know that some horses perspire profusely after drinking, and consequently more time and labour is required to dry them. An experience of upwards of a quarter of a century acquired in hunting stables, on active service in the Crimea, Indian Munity, South Africa, and on Autumn manœuvres, has taught me that no harm results from allowing horses to drink as much water as they choose, *provided*, and this must be strictly borne in mind, *that two or three hours is allowed to elapse between feeding and watering*. The cause of watering immediately after feeding being injurious is as follows: Active digestion is at this time going on, and the gastric juice is diluted by the water, and its solvent power is impaired. 2nd. The water in its passage through the stomach to the cæcum, or water stomach, carries with it into the intestines partially undigested food unfit for assimilation; this food acts as an irritant, and gives rise to cases of spasmodic and flatulent colic, indigestion, and possibly inflammation.

Picketing.

The English horses were picketed in the usual way, viz., long ground rope and head and heel ropes. In Colonial Corps only a head rope was used, this being fastened to the long rope pegged down in front of the horses. The long ropes and pegs were carried in wagons. Both modes of picketing answered very well.

The following is veterinary surgeon Cheeseman's system of picketing. He states:

"The plan I have found most effectual is tying a knot in the end of the head of the collar rope and end of heel rope.

"In holding, firm ground, make a small hole (by means of instrument described hereafter), as far in front of horse as the collar rope will allow; 9 to 12 inches deep, and as small laterally as possible, tie end of head collar rope so as to leave a loop which is easily untied, bury it, and ram the earth in hard with hammer head of instrument, a little at a time. Heel rope Y-shaped; make a hole in ground as far behind horse as heel rope will admit of; proceed as directed for head rope. Do not leave any slack rope (this is a mistaken kindness), as the horses get their legs entangled in it. Have a shackle on each hind leg just above the fetlock; if only one leg is included, the horse drags every muscle on it, by putting his leg straight and throwing all his weight into it. Webbing is lightest and best.

"In order to prevent the head collar breaking when the horse is violent, I pass a small strong rope over poll, and through loop of head rope and under the boss.

"In standing camp I bury a rope, so as to leave a loop above ground to tie to.

The tool to make the hole with is about 2ft. long, and weighs only a few ounces; one end is like a hammer, to ram the earth in with, the other is chisel pointed and rather spoon-shaped to scoop out the small holes with; this can be carried on the top of the valise.

I have found this way of picketing horses very secure, and it has answered well when the ordinary way of picketing them has quite failed.

The whole length of ropes should be used, as the further the horse is from the knot the less force he exerts on it.

This plan is admissible in many cases where, owing to the nature of the ground, the ordinary plan is impossible. When shifting camp the knot is merely lifted out (*i.e.*, pulled up).

Blankets.

Before leaving Durban the English cavalry were supplied with Kaffir blankets; the choice lay between them and the 12lb. English blanket. It was thought that the latter were too heavy for the already overladen troop-horses, and that whilst marching in the heat of the day it would, by producing profuse perspiration, cause weakness and loss of condition. It would, however, have been better to have issued the heavy blankets, as during midwinter (at this time the horses had their summer coats on) the nights were cold and frosty, and in the morning the horses were stiff and shivering, and remained so until the circulation was restored by exercise or the heat of the sun.

Heavy blankets were issued to the Royal Artillery, Engineers, and Army Service Corps, as they were able to carry them on their wagons.

In the Colonial Corps blankets were used in the Sekukuni campaign, but not in Zululand, as it was found that heavy blankets did not compensate for the disadvantages arising from weight. A few blankets, to the amount of 6 per cent., were carried in the wagons for sick horses.

Nosebags.

With a view to prevent "horse sickness" nosebags were supplied to the English horses, and worn at night between sundown and sunrise; many of the nosebags were soon lost or worn out. Unless carefully adjusted they caused great discomfort to the horses, and made them timid and restless.

Nosebags to filter the night air and prevent horses eating grass with dew on it, in order to secure immunity from horse sickness, were not used in the Irregular corps.

Whether a flannel nosebag does or does not prevent horse sickness can only be satisfactorily proved by a series of experiments during the period of the year the disease is rife. As there was not more horse sickness in the Colonial Corps than amongst the English horses, their utility for this purpose is highly doubtful. I may, however, add that on this subject there exists a considerable difference of opinion. Until more is known about their value as a preventive of disease, it is in my opinion desirable that in future campaigns they should be dispensed with.

Saddlery and Harness.

The regulation saddle and harness were used by the English corps, and on the whole answered very well. In the mounted infantry the regulation saddle was also used. The Irregular Corps were furnished with the ordinary Cape saddle manufactured in the Colony. These saddles are not of good quality, and rapidly deteriorate. The harness, especially the collars, used by the American mules, was too large.

The new pattern infantry regulation saddle appears to me the best military saddle yet invented. I would strongly recommend that this saddle be subjected to exhaustive trials and tests with a view to its being adopted in all branches of the service.

Saddlers.

On service it is desirable that there should be two or three men above the peace establishment attached to each regiment of cavalry, to replace casualties, and

available when there is a press of work. It is also highly important that there should be an abundant supply of material and tools for the repair of saddlery. On a campaign, owing to loss of condition, the shape of the back alters so considerably that unless the saddles are frequently overhauled, and stuffing put in where equired, a number of sore backs is the inevitable result. There was a great scarcity of these men in the flying column. At one time in April one-third of Baker's Horse was ineffective, the saddles had galled the horses backs, and there were no saddlers in this corps to repair the saddles. There was no proper material for repairs; grass, layers of sheep skin, and the soles of old boots were used for this purpose. In future campaigns it is most important that a saddler and one assistant, well supplied with tools and materials for repairs, should be attached to each Irregular Corps to take charge of the saddlery belonging to every 100 horses.

Farriers.

The duties of farriers and shoeing smiths were very arduous, and the climate somewhat trying. These men had to work under a hot sun without shelter. In addition to the horses and chargers of their own corps, they had to shoe the horses of officers on the staff, and the chargers belonging to officers of infantry, and many of the mules engaged in transport duty.

To insure efficiency in this branch of the service, it is highly, I may say, imperatively necessary, that when regiments and corps take the field, the farriers and shoeing smiths should be considerably in excess of the peace establishment, in order that casualties might be easily replaced on the spot. It is equally necessary that these men should not take part in actual fighting, as their services are far too valuable to be lost or endangered in performing duties which are outside the sphere of their calling. One of these valuable and useful men was killed in the charge at the battle of Ulundi. Had the campaign continued for a long period more losses would most probably have occurred, and the result to corps frequently engaged would have been most serious. There was a paucity of farriers and shoeing-smiths during the late campaign. Several of the Sick Horse and Remount Depots were nearly destitute of trained men, and, in lieu of these, civilian workmen, imperfectly skilled, had to be employed at a great expense.

The flying column was also short of farriers. Every effort was made to increase the number with this force, but as none could be spared from other corps, and skilled workmen in the towns could at this time easily make a pound a day, these efforts were fruitless. In the future it is of the highest importance that arrangements should be made to put a sufficient number of these men in the field to supply all requirements and meet all contingencies.

As regards Irregular or Volunteer Corps, the strength should not be less than one farrier sergeant and one shoeing-smith to every 100 horses.

Forges.

Although somewhat cumbersome, the field forges, as forges, answered very well. As but few shoes and no nails are made in the field, I cannot but think that something less heavy than field forges might be used. There is a machine "Blower's Rotary," sold by Thwaites and Garbutt, of Bradford, used by the Royal Engineers in the late campaign. It is small and easily carried in a wagon, the blowing power of this machine is so great that heat sufficient to warm iron axles to a temperature required for welding is quickly obtained. The objection to it is, that it is made of cast instead of wrought iron, and the anvil is a trifle too small to be of service in making shoes and nails. I would recommend that fair trial be given it at Home Stations.

Farriers' Tools.

Those in use with the Irregular corps were obtained by requisition on the Ordnance Stores.

Shoeing and Nails.

Large supplies were forwarded from base of operations at Durban to the various Ordnance Depots along the lines of communication, and issued to corps in requisition. The shoes (Arsenal) were of fair quality, and lasted from five to six weeks. Had the roads been metalled, or, as it is termed in the Colony, "hardened," the shoes would have been worn out in a month. In the first Sekukuni campaign, owing to the wear and tear caused by the stony ground, horses required shoeing once a month. Nails (Arsenal) were of inferior quality and were too brittle; many broke at the neck after a few days wear. But few shoes and no nails were made during the campaign.

Shoeing.

The English horses were shod all round; Cape horses in front, only except in the Sekukuni campaign, when they had to be shod behind as well. Hot shoeing was not resorted to only in camps, or when broken hoofs or badly formed feet had to be dealt with. As a rule it was found that the shoes were sufficiently malleable to admit of their being fitted and applied cold.

Medicines and Medicine Chests.

There was always an ample supply of the former. A pair of new pattern field chests carried on a baggage pony were in use for immediate requirements, and replenished from time to time from the reserve cases in the wagons. The field chests answered admirably.

To facilitate the transport of medicines in the field, to prevent waste, and lessen the risk and number of breakages, I would suggest that medicines, bandages, etc., sufficient for 100 horses for a month, should be put up and packed in deal cases by experienced packers; this to be done in England. A month's supply or more, if considered necessary, could be carried with each corps, and fresh supplies issued from the veterinary stores as required. Bulky medicines to be put in separate cases.

Special Diseases.—Horse Sickness.

It is not within my knowledge that evidence of a character sufficiently trustworthy and precise has been collected to establish the identity of this disease with any other known to veterinarians. Horse sickness may, therefore, be considered an enzootic affection peculiar to South Africa. It is a disease of septic nature, causing grave changes in the physical character of the blood, associated with congestive inflammation of the lungs, engorgement of the veins and capillaries of the serous and mucous membranes of the intestines, and extensive deposits of yellow lymph in the subcutaneous, submucous, and connective tissue.

By some, horse sickness is considered to be anthrax, but its identity with that disease has not yet been established.

Causes.—Except in a sporadic form, the disease occurs only in the spring and summer months. It more particularly affects horses pastured in low-lying ground, at the foot of mountains, and near the marshy banks of rivers: it is also very prevalent on the sea coast. It has been noticed that horses exposed to heavy mists or fogs in the valleys and near rivers are great sufferers; whilst those grazing on the neighbouring hills at heights mist fails to reach escape. Most Colonists firmly believe that the cause of infection is contained in the dew, and that if horses are not allowed to graze whilst the dew is on the grass, they are safe. So sure are other of the colonists that the agent producing the disease is suspended in the air, or contained in the aqueous vapour

surrounding horses on misty nights, that they look upon a flannel nosebag, placed on the horse at sundown and kept on all night, as a certain preventive.

Veterinary Surgeon Wiltshire, Colonial Veterinary Surgeon, is of opinion that the poison or agent producing this disease is contained in the grass; and in support of this view, states that he has not heard of any well-authenticated case of horse sickness in a horse fed exclusively on dry food.

From what I have seen and heard of the disease, and taking into consideration the season of the year in which it occurs, and the nature of the localities that favour its production, I am of opinion that it is due to miasmatic infection; the evolution of the disease being accelerated by improper and insufficient food, severe and prolonged work, high temperatures, highly electrical state of the atmosphere in the summer months, etc.

The diversity of opinion on this subject shows that the cause of the disease is not thoroughly known or understood, and not yet removed from the dim regions of speculation and conjecture.

Symptoms.—V.S. Wiltshire, Veterinary Surgeon for Colony of Natal, says: "As a rule the first thing noticed is the accelerated breathing and other symptoms indicative of inflammation of the lungs, such as redness of the mucous membrane of the eyes, swelling over the eyes, quick pulse, cough, coldness of the extremities, scanty urine, etc." Further on he adds: "On listening to the lungs the sounds vary, according to the progress the disease has made; in some cases they are not much altered, while in others there is an entire absence of sound, giving rise to a bubbling sound at every inspiration and expiration. In some instances this mucus is discharged in immense quantities from the nostrils at each expiration, in others there is no discharge. The whole of these symptoms are not always present, nor of the same severity, scarcely two cases being exactly alike; the temperature, however, is always high, usually from 105° to 108° F."

It often begins very suddenly and without warning. Veterinary Surgeon (1st Class) Healy, R.A., who saw many cases on the Lower Tugela line of communication, on the Umlalazi Plains near to Port Durnford, says: "I have seen a horse apparently well having his nosebag put on, half finish his corn, and then stop and blow and show great distress; I have passed horses on the picket lines to all appearance in good health and five minutes afterwards found them blowing and breathing with the greatest difficulty." He says: "It seemed to attack mules very severely, they suffered acutely; in from 12 to 15 minutes from the commencement of the attack they were bathed in perspiration, which ran off them in large drops, their eyes starting from their sockets; they were very restless, changing position and continually shifting the weight of the body from one hind leg to the other." He noticed that next to the mules the Cape horses suffered most, and that the English horses, though often weak and emaciated, seemed to stand the shock best, and often recovered. He also observed that more horses and mules were attacked from 7 to 8 a.m., and 5 to 6 p.m. than at any other period during the day; the morning cases were the worst, but fortunately were fewer in number.

The disease is often as rapid in its course as it is sudden in its attack. Many horses succumb in half an hour, others in even less time; in these cases death is the result of intense congestion, probably associated with paralysis of lungs.

In other cases the disease extends over two or three days, the intestines in these cases being more affected than the respiratory organs is shown by colicky pains, diarrhœa, etc. Sometimes the disease is associated with effusion of yellow lymph into the submaxillary space and into the areolar tissue between the skin and the larynx, and into the orbit of the eye at the back of the eyeball to such an extent as to fill up the hollow above the eye; when this hollow is filled up the case is considered by colonists as hopeless.

Post-mortem appearances. Veterinary Surgeon Wiltshire, who has made many examinations, and some in conjunction with myself, thus describes the post-mortem appearances, which may be taken as quite correct:

Abdomen. On cutting into the abdomen, dark lines and patches are noticed on the intestines, the mesenteric glands are tumefied and very dark in colour, liver and kidneys gorged with blood, spleen dark in colour and sometimes enlarged, the blood is dark in colour and coagulates imperfectly; on examining it with a microscope, in all cases where I have been able to do so, I have invariably found bacteria present.

Chest. This cavity often contains a large quantity of straw-coloured fluid on both sides. The lungs are found to be intensely gorged and very heavy, and along the edges and in patches a large quantity of yellow lymph is deposited beneath the pleural covering; on cutting into them blood and serum flow freely from the cut surfaces, as well as yellow, frothy mucus from the tubes: the intertubular space is filled with fluid. The pericardium contains a quantity of straw-coloured fluid also; the heart I have sometimes found soft and flabby, and it usually contains small clots, remarkably soft, in the left side; there are invariably black patches (ecchymosis) beneath the lining membrane more or less extensive.

In the form termed throat sickness there is great swelling of the throat between the lower jaws, involving the larynx, etc.

Contagion and infection. Sufficient evidence has been collected to show that the disease is neither infectious nor contagious.

Inoculation. I have failed to produce the disease by inoculation.

Incubation. The period of incubation is unknown.

Preventive measures. Give dry food, viz., mealies, oats, hay. Camp stables and sheds to be kept in a sanitary state. Avoid exhausting animals by overwork. If possible regulate the food and work in such a manner as to interfere as little as possible with usual habits, and avoid everything calculated to lower the health or vital powers. Prevent horses drinking fouled or stagnant water. When practicable, pass through known unhealthy localities in one march. The use of nosebags at night to prevent the disease has been already adverted to.

Treatment.—Hitherto the results arising from treatment have not been of a very satisfactory character. Nearly all the medicines named in the pharmacopœia have at one time or other been given. Carbolic acid, aconite, ethers, etc. have had a fair trial, but the general result has been failure. Many Colonists believe they have a specific for the disease, but faith in remedy is generally confined to the individual in possession of it. I may here mention that veterinary surgeon (1st class). Healy, Army Veterinary Department, was very successful in treating the disease when it assumed the form of intense congestion of the lungs; he stated that when he was fortunate enough to see the horse at the commencement of the attack, his treatment was invariably successful. His treatment was as follows:—He gave without delay Ammonia liq. fort. 20 drops, Laudanum 2 ounces, water 1 pint; if in five minutes the breathing had not become tranquil, or very much moderated, he then gave half the above dose; in five minutes more if not better, he repeated the half dose. Cases that occurred in the evening he found more amenable to treatment than those that occurred in the morning; the former cases seldom required a third draught, the latter generally did. The success of this treatment appears to have been due to the ammonia, which is

known to have occasioned a very powerful effect upon the lungs; this view is borne out by the fact that, when he used the Aromatic spirit of ammonia, a compound less strong in ammonia than the Ammonia liq. fort., his treatment failed.

The usual treatment for horse sickness is the exhibition of febrifuge medicine to allay the intensity of the fever, combined with anti-spasmodics when colicky pains are present; vesicants to chest and sides, linseed and oat-meal gruel to support the system; hand or wisp rubbings to restore the circulation and dry the body and legs; and protection from the sun, wind, and rain.

Pleuro-Pneumonia. "Lung Sickness."

This disease, slightly modified by climate, is of exactly the same nature as pleuro-pneumonia affecting horned cattle in England. The nature and symptoms of this disease are so well known both to civilians and veterinary surgeons, that it is unnecessary to dilate upon them here. In Natal and Cape Colonies inoculation as a protective measure is tried on a large scale, and with a fair amount of success. Lung-sickness prevails more or less generally throughout South Africa. With a view to eradicate it, I would strongly recommend that an Act be passed to make inoculation compulsory; were this done, and its provisions strictly carried out in a systematic manner by experts under the supervision of the Colonial Veterinary Surgeons, I feel sure that the disease would be got rid of, and as a consequence the enormous loss, amounting to thousands of pounds, that now takes place annually would cease.

Mange in Cattle.

The Colonists generally are of opinion that this disease is an eruption of the skin, cansed by derangement of the digestive organs. As a consequence of this opinion no steps are taken to segregate affected animals; the disease, therefore, spreads with great rapidity through a herd, extends to neighbouring farms, and as oxen when in this condition perform their ordinary work, the trek oxen in the towns and those engaged in the transport duty and along the high roads ultimately become affected. Mange soon reduces the condition of the most robust oxen, and renders them unfit for work, and kills off the weakly and emaciated. The spread of this disease can be prevented by isolating the affected animals, and cured by dressing them with McDougall's sheep dip; three dressings as a rule effect a cure. In the winter time cattle should be dressed between 9 a.m. and 2 p.m., as cold with wet is very fatal to cattle in low condition.

Natal Fever. (Horses.)

In this disease there is considerable derangement of the digestive organs, especially the liver. Associated with great nervous depression there is more or less congestion, and ecchymosis of the visible mucous membranes, and sometimes deposits in the anterior chamber of the eye. In the first stage it much resembles influenza.

Treatment.—Saline medicines, sloppy diet, green forage, and protection from the sun, generally effected a cure in a few days.

Natal Sores. (Horses).

Chiefly affect the legs, and are due to poverty and impurity of the blood, and to ticks which infest the legs when horses are encamped in long grass. Treatment consists in the exhibition of tonics, and washing the sores with carbolic acid, soft soap, and warm water.

Casualties During Campaign.

The number of admissions to treatment, and the number of fatal casualties was less than might have been anticipated among horses exposed to the hardships and privations inseparable from active service in the field, and in a country where a disease so fatal as "horse sickness" is enzootic, and epizootic in the summer months.

Glanders.

Cases of glanders generated in the animal affected were few. Living under conditions and surrounded by elements favourable to its development, it is a matter for congratulation that an outbreak of this disease virulent in character and extensive in range did not take place. That such an outbreak did not occur reflects highly on the vigilance, care, and judicious precautions of the Officers Commanding Corps, and the skill of the veterinary surgeons in charge.

Digestive Organs.

Diseases of the digestive organs were frequent, enteritis, colic, and indigestion figuring prominently; these cases were due to the rations being of inferior quality, to irregular feeding and watering, to innutritious grass, insufficient food, hard work, low temperature, and occasionally bad water.

Pneumonia.

Cases of inflammation of the lungs were remarkably few, and confined to horses employed on the coast and Lower Tugela line. That none of the horses with the 2nd Division suffered from this disease speaks volumes in favour of the up-country climate, and shows equine tolerance of exposure to extremes of temperature. The thermometer in that part of the country in which the 2nd Division carried on operation, often, in the cold weather, ranged from 28 to 78 F. in 24 hours.

Congestion of Lungs.

Severe exertion on hilly ground during the heat of the day frequently produced a congested state of the lungs; the normal state of the circulation was soon restored by resting horses and giving a stimulant; unless this was done the cases sometimes terminated fatally.

Roaring.

The generally received opinion in England is that horses in South Africa are not affected with roaring. Mr. W. Day, in his book "The Racehorse in Training," published by Chapman and Hall, 1880, says:—I am told that at the Cape of Good Hope this disease is unknown, and that the worst roarers when taken there become sound." This is an error, as many English horses during the Zulu campaign became affected with roaring, probably caused by being exposed to extremes of temperature, etc. This disease is frequently met with in Colonial horses, probably owing to their living under conditions approximating those of active service in the field.

Exhaustion.

Several horses died from exhaustion, caused chiefly by hard work in hilly and mountainous ground; the loss would have been greater had not Officers Commanding Corps adopted the sensible practice of taking with them on scouting and reconnoitring expeditions spare horses, amounting in number from 6 to 10 per cent. of the force employed.

Fever, Simple.

There was always a certain amount of fever present. This is not surprising; hard work, exposure, extremes of temperature, treeless, shelterless camps, indigestion, and derangement of the bowels, were active factors in the production.

Laminitis.

The voyage from England, and the enforced standing position whilst on board ship, did not result in more than three or four cases of this disease; at the same time it might have predisposed horses to it.

It was found that cases of laminitis during the cam-

paign assumed a severe character, and five horses had to be destroyed, the structural changes in the laminæ being so great as to preclude all hope of cure.

Subsequent to the campaign there were several cases of rheumatic laminitis in the cavalry.

Colonial horses did not appear to be much subject to this disease; when it did occur it was usually of a mild character, seldom recurrent, and as a rule curable.

Sprains.

Considering the weight carried, the heavy draught work, the long distances travelled, and the pace at which some of the work was done, the number of sprains was very small.

Sore Backs.

In the English Cavalry, saddle galls, in number and severity were much less than anticipated. This was due to the great care and attention exercised by Commanding Officers, and the use of a blanket under the saddle. Owing to inferior saddlery, paucity of saddlers, and want of material to repair the saddles, some of the Irregular Corps suffered severely. Sore backs, however, are inevitable so long as the present heavy kit saddles and complicated accoutrements are carried.

VETERINARY DEPARTMENT.

It is now my pleasing duty to refer to the officers of the Veterinary Department. The small loss that attended bringing horses from England to Port Durban, Natal, was in a large measure due to the unremitting attention and skill displayed by these officers. Throughout the campaign they performed their duties with zeal and intelligence, gave me every support, and within the sphere of their duties were at all times anxious and eager to promote in every way the interests of the service.

With regard to the duties of the Veterinary Department set forth in Section 18, pages 30 and 31, "Regulations for the Organization of the Line of Communication of an Army in the Field," and the services of Veterinary Surgeons in connection with "Remount Depôts," pages 31 and 32, same regulations, I would beg to remark that the instruetions there laid down cover all, or nearly all the duties required of the Veterinary Department in the field; at the same time the services of veterinary officers might be extended, and further utilised by appointing them members of Boards or Committees for the purchase of horses, cattle, and mules; purchase of forage and grain; members of boards assembled to adjust claims preferred by civilians for losses in horses and cattle; and by placing them in veterinary charge of cattle depôts and farms.

With a view to the efficient discharge of the duties connected with the Veterinary Department, to replace and to meet the unexpected demands for the service of veterinary officers which are constantly cropping up, it is necessary that the number of veterinary surgeons employed with an army in the field should be on a liberal scale; and in the interests of the service and science, I would strongly recommended that a veterinary officer should be appointed for the express purpose of inspecting horses and cattle the property of civilians in that part of the country within and surrounding the field of operations, in order to guard against the introduction of contagious and epizootic diseases amongst horses and cattle, the property of the Army, as well as to investigate and report on the nature of special diseases and poisonous plants peculiar to the country.

In conclusion, I beg to thank you very sincerely for placing at my disposal a number of most efficient veterinary officers, for the unflagging interest you took in everything connected with the welfare of the Department, and the valuable advice and generous support you gave me throughout the campaign.

T. P. Gudgin, Inspecting Veterinary Surgeon.

Aldershot, April 14, 1880.

The Principal Veterinary Surgeon, etc.,
War Office, London.

THE YORKSHIRE VETERINARY MEDICAL SOCIETY.

A meeting was held on the 28th October at the Hotel Metropole, Leeds, when the following representatives of the profession in Yorkshire were present: Mr. H. G, Bowes, President, in the chair; Messrs. A. M. McCarmick, Treasurer; M. Robinson, Barnsley; A, Noel Pillers, T. C. Fletcher, Sheffield; Geo. W. Carter, Keighley; Geo. Whitehead, Batley; A. Ellison, Harrogate; S. Wharam, A W. Mason, W. Crawford, G. Bowman, Leeds; F. W. S. Clough, Halifax; P. Deighton, Selby; J. S. Woodrow, Swinefleet; F. Hallilay, Dewsbury; J. W. Lazenby, Tadcaster; A. N. Watson, Bradford; and J. Clarkson, Secretary.

In regard to the minutes of the last meeting held at Sheffield, the Secretary said he had to apologise to the members for their meagreness. A report of the last meeting had been written out and despatched by him through the post to *The Veterinary Record* for publication. Unfortunately the report had been lost on the way and had not been recovered, although most strenuous efforts had been made to trace it. He had done his best to replace the report by writing a short one entirely from memory, and it was this shorter report which appeared in *The Record*, and which formed the minutes of the last meeting. He was extremely sorry that this unfortunate occutrence had happened, because he had desired a good substantial report of their last meeting at Sheffield, which he considered had been a very successful one.

It was suggested by a member that in future such reports should be sent by registered post, and the Secretary promised that he would see this was done. The minutes were then carried in their abbreviated form.

The Secretary read letters of apology for inability to attend from Messrs. McKinna, Weston, of York; and Walpole, of Wicksley; also a letter from Mr. O. S. Smith, of Barnsley, resigning from membership of the Society.

In regard to the last letter the Chairman said he had received a telephone message from Mr. Smith, of Barnsley, explaining that his reason for resignation was that it was impossible for him to attend the meetings regularly, though he was sorry to sever his connection with the Society of which he had been a member for 13 or 14 years. Under these circumstances, the Chairman proposed they should accept his resignation with regret, and a resolution to this effect was carried.

The Treasurer presented his balance sheet for the year ending October 31st, 1910. He pointed out that their balance in hand had been increased by about £10 since the last annual meeting. He was sorry to say, however, that, on the whole, subscriptions had suffered a falling off, the amount so far received this year being £31 as against £38 last year. He should be glad if members would endeavour to keep up their subscriptions regularly. With reference to the items of expenditure, these had been normal. One item put down on the expenditure side of the balance sheet represented two wreaths which had been sent by the Society to the obsequies of the late President of the Royal College and the late Mr. Cooke. The balance in hand on the 31st October was £40 8s. 5d.

Mr. MASON proposed, and Mr. Ellison seconded, the adoption of the Treasurer's report and balance sheet: and this was duly carried.

Mr. MASON drew attention to one of the rules of the Association to the effect that any member who has not paid his subscription to the Association for a period of four years should be struck off the roll. It was ridiculous, he thought, that the Secretary should be constantly sending out circulars and notices to such members as were in the debt of the Society to that extent. He proposed "That notice be sent by registered post to members who are 4 years in arrear with their subscriptions, requesting payment of the amount overdue and notifying them that if not paid within 14 days from the date of the notice their names would be struck off the roll."

Mr. BOWMAN seconded, and the resolution was carried.

ELECTION OF OFFICERS.

The CHAIRMAN, in proposing the new President, said it was his pleasant duty to submit to them the name of a gentleman who he thought would be very acceptable to all of them. The gentleman he proposed was Mr. J. W. LAZENBY. He had been a member of the Society for a considerable number of years and, knowing him as he did, having been a contemporary with him at College, he was quite sure they would have in him an excellent president who would receive the support of all members of the Society and who would conduct the affairs of the Society in an able and conscientious manner.

Mr. WHARAM, in seconding, said he wished to endorse the remarks of the President (Mr. Bowes) with regard to the ability of Mr. Lazenby to fill the position to which it was proposed to elevate him. He was confident that under his Presidency they might look forward to a successful year.

The resolution appointing Mr. Lazenby to the Presidency was carried with acclamation.

Mr. BOWES, in welcoming the newly elected President to the chair, said he hoped he would have as pleasant a year of office as he himself had enjoyed. He then vacated the chair in favour of Mr. Lazenby, who occupied it for the rest of the meeting.

Mr. LAZENBY, in thanking the members of the Society for the honour conferred upon him, said: I am quite aware in accepting this office I am accepting a great deal of responsibility, especially when succeeding such an able president as you have had for the past year in Mr. H. G. Bowes. I can only say that during the time I occupy this position I shall do my best for the veterinary profession in general, and for this Society in particular.

Vice-Presidents.—There were elected: Messrs. H. G. BOWES (retiring President), JONES, Doncaster; and ELLISON.

The Treasurer (Mr. MCCARMICK) and the *Secretary* (Mr. J. CLARKSON) were re-elected to their respective offices.

The Executive Council, consisting of six members apart from the other officers of the Society, were elected as follows: Messrs. G. BOWMAN, Leeds; J. MCKINNA, Huddersfield; S. E. SAMPSON, Sheffield; F. W. PAWLETT, York; S. WHARAM, Leeds; GEO. WHITEHEAD, Batley.

Auditors.—Messrs. A. W. MASON and W. CRAWFORD were re-elected.

Mr. H. MARSDEN HOLLAND was nominated for membership by the Secretary.

Messrs. HERBERT NIXON, S. H. NIXON, J. H. YATES, and H. THOMPSON, Sheffield, were proposed as members of the Society by the Secretary. They had been nominated for membership at the last meeting at Sheffield.

FEES FOR TESTING AND INSPECTING CATTLE.

The SECRETARY intimated that he had received a communication from Mr. Norwood, of Conisborough, enquiring as to what fees should be charged by veterinary surgeons when appointed to inspect dairy cattle for the purpose of detecting tuberculous animals. On more than one occasion, he had received letters of a similar nature, and he had therefore ventured to include this question among the items on the agenda for discussion. Mr. Norwood asked for information as to fees under three heads, viz., per cow, per herd, and for supplying the tuberculin test, and he (the Secretary) invited discussion on the matter so that he could reply to any future enquiries of the same kind.

Mr. BOWMAN said he had had a good deal of experience in the matter, because he had conducted for three or four years, before the Leeds authorities appointed a permanent official, inspections of dairy cattle for the Leeds Corporation, and his fee was paid for an afternoon's inspection.

Mr. WATSON said he held an appointment as Inspector of Dairy Cattle, and he based his charge on so much per head for each examination. If he examined the same beast twice he charged two fees.

Another member pointed out that in country districts such a rule was difficult to apply, because very often the cattle were scattered over a large area, and a considerable amount of time was taken up in travelling to and fro.

Mr. CARTER (Keighley) said that no Local Authority, unless they had special Acts of Parliament of their own, could enforce the tuberculin test. It is only with the consent of the farmer that the test could be applied. With regard to the charge for inspection of cattle, it entirely depended upon the distance one had to travel to the mistal. If one had a circumscribed area, naturally one could afford to conduct the inspections at a lower rate than if a great deal of time were spent in making the visits.

Mr. H. G. BOWES thought the question they had to consider was not only the matter of fees, but whether it would not be wise for them to issue some circular urging local authorities to appoint no one but qualified veterinary surgeons to make such inspections. He thought they should decide at that meeting to empower the Council to make representations in the proper quarter to prevent dairy cattle being inspected by any other than a qualified veterinary surgeon, and he proposed that the Council should hold a meeting shortly to consider the matter.

Mr. PILLERS seconded.

Mr. MASON, in supporting, suggested that the Council in their representations to the local authorities should point out the danger to the public health in having such examinations conducted by unqualified men.

After some further discussion the resolution was carried unanimously.

The question of expenses incurred in connection with the Amalgamation of Veterinary Societies was next raised, and it was proposed to send a subscription of £2 2s. from the Yorkshire Veterinary Medical Society towards the defraying of such expenses.

Mr. CLOUGH offered an amendment. He thought they should not send a donation to the amalgamation fund without first knowing the amount of the expenses it was desired to contribute to. It was, he considered, an unbusinesslike procedure to give money away in a blindfold fashion.

The amendment found a seconder in Mr. Pillers (Sheffield) but on being put to the meeting it was lost, and the original resolution carried.

The TREASURER asked for the authority of the meeting to transfer their banking account from Messrs. Beckett's Bank to the Yorkshire Penny Bank. This was acceded to, and a formal resolution to that effect was passed.

Under the heading of "other business" the Secretary called attention to the recent offer of Mr. Pratt, of

Ripon, to present his valuable collection of horses shoes etc. to the Yorkshire Veterinary Medical Society provided they found a suitable home for it. He mentioned that Prof. Kendal, of Melbourne University had seen this collection, and had become so enamoured of it that he had suggested to Mr. Pratt that they in Australia would be very glad to find a home for such a collection in Melbourne. He (the Secretary) thought the Yorkshire Society should not lose the opportunity of accepting this very handsome offer, as there might be a possibility of the collection being transferred to Australia if they did not.

Mr. H. G. BOWES also spoke on the matter, and urged that advantage be taken of Mr. Pratt's magnificent offer, but that it should not be taken in a dog in the manger spirit. He had had the pleasure of seeing this collection of horse shoes, and he could assure them that it was a museum of rare value, and quite unique. Their only difficulty was the provision of a room in which to preserve and exhibit them, and his feeling was that unless proper provision could be made for them it would be better not to accept them.

Mr. PILLERS and Mr. Mason spoke in support of the idea of obtaining some room, either entirely for their own use or in conjunction with some other society, where they might possibly be able not only to exhibit Mr. Pratt's collection, but at the same time hold their meetings.

After some further discussion,

Mr. CARTER proposed "That the Council, before the next meeting of the Association, make enquiries as to the cost of renting a room for the purpose of holding the collection of horse shoes and in which meetings could be held, and further that the Council should ask Mr. Pratt to allow the matter to remain in abeyance for the present as his offer was receiving their serious consideration."

Mr. CLOUGH seconded this, and the resolution was carried.

The SECRETARY referred to the present somewhat altered attitude of the Royal Society for the Prevention of Cruelty to Animals towards the veterinary profession. There had been a time, remarked the Secretary, when the relations existing between veterinary surgeons and the R.S.P.C.A. were not of a very friendly character, but he thought they now cherished better feelings towards each other. He was glad to see that at the Prize Exhibition of Costermongers' donkeys and ponies recently held in Leeds under the auspices of the R.S.P.C.A. some veterinary surgeons, members of their Society, had acted as judges. He thought it might be opportune for them to show in some way that their Society considered such a proceeding was a step in the right direction.

Mr. MASON remarked that the idea was a good one, and said it might be a gracious act on their part to ask the local representative of the R.S.P.C.A. to dine with them on the next occasion of the kind, and thus show their appreciation of the work of the Royal Society, and demonstrate to them that the members of the veterinary profession wished as far as possible to work in harmony with them.

This suggestion it was decided to carry out.

Mr. MASON drew attention to one of the rules of the Society which bound the Society to revise their existing rules every five years. As it was five years since the book of rules had been printed, and some resolution appeared to be necessary one way or the other, he moved "That the present rules be adopted without revision."

The TREASURER seconded, and the resolution was carried without dissentient.

Mr. PILLERS, followed by Mr. Fletcher (Sheffield), gave a report of a recent operation performed by Prof. Woodruff on a "roarer" at Sheffield in the presence of several members of the Society. Unfortunately, he said, the horse, although it apparently recovered from the operation and was well on the road to complete restoration, subsequently suffered a sudden relapse and died. In Mr. Fletcher's opinion the cause of death was the septic condition of the larynx and throat generally following on the operation.

Mr. WATSON also gave a short account of an operation of a similar character which he had had performed on a horse belonging to him. The animal, which was a bad roarer when it came into his possession, was operated on by Professor Woodruff, who informed him when he had cut down to the trachea that the horse was a poor subject and could hardly be expected to show good results. The operation was, however, successful, and the horse was a little better now, though not entirely cured. The roar was now reduced to a whistle.

Before the conclusion of the meeting a vote of thanks was accorded to the retiring President, Mr. H. G. Bowes, for the services he had rendered to the Society during the past year.

Tea was afterwards served in the Grill Room of the Hotel, to which those present at the meeting were entertained at the invitation of the Leeds members of the Society.

The Destruction of Rats.

The necessity of regarding the extermination of rats as a national concern demanding national effort was unanimously insisted upon at the meeting held on 2nd inst., at the Royal Institute of Public Health, Russell Square, by the Incorporated Society for the Destruction of Vermin.

Sir JAMES CRICHTON-BROWNE, who presided, stated that steps had been taken for the re-organisation of the Society long before there was any whisper of the reappearance of plague in this country.

With regard to the outbreak in Suffolk, one must say at once that there was not the slightest necessity for panic, no reason for any scare about it. There were now sanitary bye-laws and sanitary organisations throughout the country which would enable them to deal with it in a very different manner from what was possible in previous visitations. At the same time, while there was no necessity for panic he felt bound to say that there was great necessity for caution and room for some apprehension. They could not shut their eyes to the fact that the *bacillus pestis* had established itself in the rodents and even in other animals in East Anglia. Rats were never more numerous in England than they were at the present time, and there was some danger that the *bacillus* might spread in gradually extending circles and that there might be a very wide diffusion of disease, cases cropping up here and there. Then there was not merely the dissemination of disease by vermin, such as rats, rabbits, and so on, to consider. There was dissemination in the particular form which it had assumed in East Anglia, the pneumonic form, by breathing. So that there was a great necessity for caution, and it seemed to them that the time had come for active measures to be adopted for prosecuting what he regarded as a national work of great importance.

Dr. L. SAMBON showed, by means of lantern slides, a number of flies which had been proved to be disease carriers both to human beings and animals, and also explained how many different animals might be factors in the spread of disease, one of the instances being that of a dog, infected by a rat which it had killed, conveying it to sheep or cattle, and they in turn communicating the circles to man. This fact, he said, illustrated how difficult it was to fight against any disease unless they knew all the factors in the epidemiology. Cats

and dogs were extremely useful to keep down the number of rats, but they were not useful when an epidemic broke out, because, being home pets, they became a source of very great danger to human beings if they got the infection.

DEMAND FOR NATIONAL ACTION.

Sir LAUDER BRUNTON agreed with Sir James Crichton-Browne that there must be universal action throughout the country in this matter. It was no use attacking it in sections, because if they killed off, or, rather, tried to kill off, all the rats in any one district, some of them were certain to migrate into safe quarters in a neighbouring district. And then, when vigilance was relaxed, they would return to their former haunts. If they were to prevent plague they must have concerted action. It was not alone sufficient that districts should take concerted action. They must have national action.

Mr. J. CANTLIE suggested for the consideration of those engaged in exterminating the rats in Suffolk that instead of beginning at the seat of the trouble they should start at the borders of the county and work inwards in a gradually contracting circle. But the rats were only a small part of the problem. Hares, rabbits, ferrets, cats, and dogs had been all proved to be infected, so that the evil was a very serious one indeed.

Mr. MARK HOVELL, referring to the action which the authorities in Suffolk were taking to destroy the fleas on the rats that were killed, suggested that their destruction would be more complete if the dead bodies were at once placed in bags. The fleas on the bodies would then be made prisoners, and they would all be destroyed if the bag, with its contents, were thrown into a destructor or other fire of suitable heat and dimensions.

Captain T. J. TAILBY, speaking on behalf of the Society for the Protection of Birds, urged that the law against the killing of owls and kestrels, which were most valuable natural aids in getting rid of rats, should be rigidly enforced.—*The Times.*

Anthrax.

It was resolved at the Council meeting of the Roya Agricultural Society, on the motion of the Earl of Northbrook, Chairman of the Veterinary Committee, seconded by Mr. G. G. Rea, "that, for the protection of our herds and flocks, and in order to prevent the spreading of foot-and-month disease and anthrax, it is of the greatest importance that all ships, wagons, or other vehicles which have carried foreign skins, wool, and other substances likely to bring or spread disease, should be thoroughly disinfected before being used for the purpose of carrying cake, feeding stuffs, or materials used in the manufacture of feeding stuffs. Further, that it is desirable, if possible, to prevent the carriage of skins, wool, etc., on the same ships as cake and other feeding materials; or, if they must be carried on the same boats, that adequate precautions should be taken to prevent the contamination of feeding stuffs." Copies of this resolution were ordered to be forwarded to the Board of Agriculture and the Board of Trade.

Meat Inspectors.

At an examination by the Royal Sanitary Institute for Inspectors of Meat and Other Foods, held at Birmingham on October 28th and 29th, twenty-one candidates presented themselves; sixteen candidates were granted certificates.

DISEASES OF ANIMALS ACTS 1894 TO 1903, SUMMARY OF RETURNS.

Period	Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Counties Affected	Sheep Scab.	Swine Fever.	
	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Animals Attacked	Out-breaks.	Out-breaks.	Slaughtered. *
GT. BRITAIN. Week ended Nov. 5	23	40			2	5		7	37	372
Corresponding week in 1909 ...	25	31			12	25		12	28	256
Corresponding week in 1908 ...	27	27			10	39	London 2	15	41	490
Corresponding week in 1907 ...	27	35			12	35		18	38	180
Total for 45 weeks, 1910	1257	1502	2	15	324	946	Surrey 3	374	1292	12022
Corresponding period in 1909 ...	1125	1471			474	1636		510	1460	13117
Corresponding period in 1908 ...	947	1237	3	112	703	2190		678	1803	11373
Corresponding period in 1907 ...	939	1257			747	1710		465	2139	10247

Board of Agriculture and Fisheries, Nov. 8, 1910.

								Parasitic Mange (outbreaks)			
IRELAND. Week ended Oct. 29	...	...	...	...	...	...	...	5	4	91
Corresponding Week in 1909 ...	...	...	...	...	...	...	1	7	...	...
Corresponding Week in 1908 ...	...	...	...	...	...	...	...	7	1	43
Corresponding Week in 1907 ...	...	...	...	...	...	...	...	6	4	39
Total for 44 weeks, 1910 ...	7	10	...	...	1	2	62	387	82	1869
Corresponding period in 1909 ...	8	8	...	...	...	...	70	330	86	1561
Corresponding period in 1908 ...	7	10	...	...	...	...	34	300	152	3534
Corresponding period in 1907 ...	3	5	...	...	5	9	72	212	139	2414

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Nov. 2, 1910

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

What Ailed the Pig?

At the Portadown Petty Sessions on October 10th a farmer was summoned for exposing for sale in the Portadown pork market the carcase of a diseased pig which was alleged to be unwholesome and unfit for food. Mr. J. L. Rowlett, medical officer of health, and Mr. R. W. Thompson, veterinary surgeon, said that the pig was suffering from tuberculosis, and that in their opinion the carcase was not fit for human food. Dr. R. J. Rowlette, lecturer in pathology at Queen's College, Galway, and pathologist to the Steevens and Rotunda Hospitals, said that he found tubercle bacilli in the glands of the animal, and that the portions of the carcase submitted to him were infected with tuberculous disease.

For the defence, Mr. J. McAleer, veterinary surgeon, stated that he examined the pig and formed the opinion that it was fit for the food of man, and he would not have condemned it.

Dr. F. McDonald said that the pig was not suffering from tuberculous disease. It was a sound, healthy pig, fit for the food of man, and it was not suffering from any disease.

Professor E. J. McWeeney said that he could not find any traces of tuberculous disease in the portions of the carcase submitted to him. He found no tubercle bacilli in the tissues. He was distinctly against all kinds of alarmist rumours that would result in good carcases of meat being condemned because a small portion of the carcase might bear evidence of disease. He was then asked to explain the following passage from the report of the Royal Commission on Tuberculosis:—"In view of the greater tendency of generalisation of tuberculosis in the pig, we consider that the presence of tubercular deposits in any degree should involve seizure of the whole carcase and organs," and in reply Prof. McWeeney said that was not exactly infallible, and men who had interested themselves in this question were entitled to their own opinions. He quite accepted Dr. Rowlette's statement that he found tubercle bacilli in the specimen sent him, but he (Professor McWeeney) failed to find them in what he examined.

The case was dismissed, but the Town Council of Portadown, it is said, will appeal.—*The Lancet.*

The Therapeutic Use of Alcohol Vapour Mixed with Oxygen.

In *The British Medical Journal* for Nov. 5, Dr. W. H. WILLCOX, and Prof. B. J. COLLINGWOOD detail their experiments with Oxygen and Alcohol, from which the following extracts are taken.

The value of oxygen as a most beneficial remedy in cases of illness where there is respiratory and cardiac embarassment is generally recognised, and oxygen has been extensively used on account of its good effect in these conditions.

In this paper we wish to call attention to the very remarkable stimulant effect on the heart and circulatory system produced by the inhalation of oxygen containing alcohol vapour. It can be readily demonstrated in cases of cardiac failure that the addition of alcohol vapour to the oxygen administered produces a stimulant effect on the circulatory system much greater than that produced by the breathing of oxygen alone. These are the good effects of the oxygen *plus* an additional marked stimulant effect on the circulation caused by the contained alcohol vapour.

The combination of oxygen and alcohol vapour was first used in some experiments on animals made by one of us in 1907 (B. J. Collingwood), in which it was found that after an overdose in chloroform anæsthesia, the mixture of oxygen and alcohol vapour was a very valuable remedy for the cardiac failure which had supervened. It was found that the effect of oxygen containing alcohol vapour was greater than that of oxygen alone.

As a result of these experiments, oxygen which had been bubbled through absolute alcohol contained in an ordinary wash-bottle was administered by one of us (W. H. Willcox) in several cases of illness in which cardiac failure was a prominent symptom, and it was found that the mixture produced a remarkable stimulant effect on the heart and circulation, decidedly greater than that produced by oxygen alone. In cases of pneumonia with cardiac failure the mixture of oxygen and alcholol vapour was found to be a very valuable remedy.

Investigations were made into the causation of chloroform apnœa when large doses of chloroform had been administered to cats. It was found during these investigations that frequently marked chloroform poisoning occurred, and the animals presented all the outward signs of death. Respiration had ceased, the blood pressure had sunk to zero, the eyes were soft, and on opening the thorax the feeblest flicker of auricular contraction was the only suggestion of possible recovery. In other cases the poisoning was not so profound, apnœa and a fall of arterial blood pressure being alone observable.

It was found that the apnœa in many cases could be relieved by the administration of carbon dioxide mixed with oxygen, and breathing restored. This remedy, however, did not restore the cardiac failure which had supervened, nor did the administration of oxygen alone have the desired effect in raising the fallen blood pressure. In these cases, where cardiac failure remained after respiration had recovered, it was found that the administration of oxygen which had been bubbled through absolute alcohol was a very valuable remedy, and in many cases the blood pressure quickly rose to normal, and the heart's action was restored. It was found that good results followed the administration of air containing alcohol vapour, and the cardiac failure which was not restored by oxygen or air alone, quickly recovered when air containing alcohol vapour was administered. It was found it the absolute alcohol through which the gas was passed had been exposed to air for some time it lost to some extent its beneficial effect, owing no doubt to absorption of water, and thus to there being a smaller amount of alcohol vapour present in the gas which was passed through the diluted alcohol.

The simplest method of administration is to have an ordinary bottle of about 16 fluid ounces capacity, fitted with a rubber cork with two holes through which pass two glass tubes, one, the inlet, reaches nearly to the bottom of the bottle; the other, the exit, just through the cork. The glass tubes should be bent at right angles above the cork. The bottle should be about one-sixth full of absolute alcohol.

The oxygen cylinder is attached by rubber tubing to the inlet tube of the wash-bottle, and to the exit tube is attached a length of rubber tubing, to the end of which is fixed an ordinary glass funnel for administering the oxygen and alcohol vapour when held over the mouth and nose of the patient. In an emergency the wash-bottle containing absolute alcohol can be dispensed with, and a pad of wool soaked in absolute alcohol placed in the apex of the glass funnel, which is connected by rubber tubing directly with the oxygen cylinder.

It is better to use absolute alcohol in the wash-bottle, since with less concentrated forms of alcohol an insufficient amount of alcoholic vapour will be contained in the oxygen. The oxygen should be bubbled through the alcohol in a rapid stream. The full effect of the administration is obtained after five minutes, and lasts for several minutes afterwards. As the effect passes off the administration should be repeated.

The Treatment of Slight Wounds by Iodine.

Iodine as an application to abrasions, cuts, deep scratches, and the like, has been, I think, but little exploited; I therefore venture to suggest the following method of using it in such cases—a method which I have used extensively in practice for over eighteen months, and which offers many advantages from its extreme simplicity and economy of time and material.

As soon as possible after the occurrence, the wound, without being in any way cleansed, is painted with the following solution:

Tinct. iodi (*B.P.*)	2 parts.
Ether	3 „

A second coat is given after about a minute. An ordinary clean camel-hair brush is used, and the application made well around the wound. No further dressing is required in cases where the wound is not liable to be soiled or rubbed (for example, wounds about the face); in other cases a simple pad of sterile gauze is used. If uncovered (and this gives the best results, when feasible), a single fresh application of the iodine is made three times a day; if covered, only twice. This method has given most excellent results, which have in many instances been checked by comparison with the behaviour of similar lesions (sometimes in the same patient) under treatment with (1) sterile dressings alone, (2) boracic, and (3) cyanide gauze and perchloride of mercury dressings.

G. K. Aubrey, L.R.C.P.Irel., L.M.S.S.A., Lond.
—*B. M. J.* Assist. Med. Officer, Darenth Asylum.

The following letter has been forwarded to *The British Medical Journal* by Mr. A. E. Maylard, of Glasgow:—

"Kensington, W.

My dear Maylard,

You are quite right in saying that the use of the solutions of iodine in surgical antiseptics was generally employed by me in 1876 in the treatment of all wounds and most operations, but not in the way you mention—by the local application of the solution of iodine to the skin of the part preparatory to operation. If you will refer to the fourth edition of my book on *Surgery*, published in 1884, vol. i, when Lister's splendid work was first introduced, you will find on pages 23-24 that I had adopted the use of iodine five or six years before, and I may add have adhered to its use with some small modifications up to 1908 when I retired from practice—a period of forty years. I was led to use iodine as an antiseptic from having acted as dresser to Mr. Aston Key in 1850, when Guy's, with all the London hospitals, had a plague of hospital gangrene; and Mr. Key allowed his dressers who had charge of those cases to use the local application they thought to be the best. I selected iodine; and I say now that the results obtained in the treatment of gangrene were better with iodine than with any other drug.

Upon this experience, acquired twenty-seven years before, in 1850, the use of iodine as an antiseptic for general purposes naturally came before me in 1872; and I am pleased to express the opinion, after forty years' experience, that it is without doubt the best antiseptic drug surgeons of the present day possess.

Among its other advantages, iodine in the form of a solution can always be obtained in any chemist's shop. The lotion may be used as a spray or otherwise, with or without a sponge. As an antiseptic it is excellent, and when warm has a marked tendency to arrest capillary bleeding or oozing. I have always made the iodine lotion by adding its strong solution to water to render it of a light sherry colour, and in septic cases I make the solution of a darker colour. In recent years, in cases of bad compound fractures and septic wounds, I have used iodine in the form of iodol, finely powdered, with boracic acid in equal parts, dusting the wound inside as well as outside with the powder before it is finally closed and dressed, using a dry dressing of some antiseptic gauze to cover the whole. Under this treatment my results have been very good—my dressers used to say that they were better than my colleagues—but I am satisfied with saying that they have been good. I should like to add that I have used in all my cases torsion of the arteries, which may have done much to bring out the good result.

Swansea Slaughter-house.

It is so constantly asserted by the opponents of public slaughter-houses that the latter can only be carried on with the assistance of the rates that it is of interest to learn from the annual report of the Swansea public auditors that the net profit on the slaughter-house in that borough for the year ending March 31, 1910, after providing one year's interest on stock and sinking fund, amounted to £564, an increase of £317 upon the profits of the previous year.

Personal.

A Centenary.

On Saturday evening, Nov. 5, Mr. F. Morton Wallis, M.R.C.V.S., of Halstead, entertained the men in his yard and shoeing forges, with their wives and a few personal friends, including Miss Wallis, Messrs. Edwin C. Wallis, Leeds; Arthur H. Wallis, Combs, Stowmarket; H. H. Portway, J.P., C.C.; F. C. Field-Hyde, L.R.A.M., Cambridge; A. N. Smith, H. Hayward, London; G. H. Mathews, and others, to a dinner and musical evening at the Co-operative Assembly Rooms, to celebrate the centenary of the establishment of his grandfather, the late William Wallis, and successors, as veterinary surgeons in Halstead. The company numbered upwards of 35. Telegrams were received from Dr. E. Simpson Shave, London; H. G. Cobb, Braintree; G. D. Martin, M.R.C.V.S. Westcliff-on-Sea; and others, regretting their inability to be present. Songs, musical sketches, and recitations were given by Mrs. F. Morton Wallis, and Messrs. Smith, Hayward, and Mathews which were much enjoyed.

During the evening, after the usual loyal toasts, Mr. Portway proposed the health, happiness, and future prosperity of Mr. Wallis his old schoolfellow and friend from childhood which was given musical honours Mr. Portway said it was a unique occasion, and he was sure they all heartily congratulated Mr. Wallis on the fact that he had succeeded his father and grandfather and was still carrying on the same profession and business, esteemed and respected by all his fellow townsmen and friends.

Mr. Wallis suitably responded, and expressed the great pleasure Mrs. Wallis and himself felt in welcoming their friends and employees.

Mr. Edwin C. Wallis then proposed the health of Mr. Fisher (who has acted as confidential clerk and bookkeeper for twenty-one years) and the employees, coupling with the latter toast the name of Arthur Rayner (Foreman). Mention was made of the good and kindly relations that had always existed between master and men, and that Arthur Rayner represented the fourth generation of his family who had worked for Messrs. Wallis during the past century, the latter's term of service being 28 years.

Mr. Fisher returned the company thanks for drinking his health, and the kind things said about him, and thought he should not regret it if he were able to complete another 21 years.

Arthur Rayner, on behalf of himself and his fellow workmen expressed appreciation of the kind remarks that had been made and the way the toast had been re-

ceived. For his part he could say he had done his best with great pleasure for a good many years, and he hoped to be able to do the same for Mr. Wallis for some years to come yet. He wished to express their pleasure and gratitude to Mr. and Mrs. Wallis for the splendid dinner and musical treat they had been given that evening.

"The Visitors" was responded to by Messrs. Field-Hyde, Smith, and Hayward. Auld Lang Syne concluded a very enjoyable evening.

ARMY VETERINARY SERVICE.

Extract from *London Gazette*,

WAR OFFICE, WHITEHALL, Nov. 4.

Hon. Maj.-Gen. F. Smith, C.B., C.M.G., on vacating the appointment of Director-General is placed on retired pay. Dated Oct. 15.

Nov. 8.

ARMY VETERINARY CORPS.

Maj. E. W. Larnder to be Lieut.-Col., in succession to Hon. Maj.-Gen. R. Pringle, C.B., D.S.O., appointed Director General. Dated October 15.

The promotion to the rank of Capt. of H. C. Dibben is antedated to Oct. 18. 1909.

TERRITORIAL FORCE. UNATTACHED LIST.

J. Hill to be Lieut. Dated Sept. 7.

CORRESPONDENCE.

MR. PILLERS "ON THE SO-CALLED EQUINE SCLEROSTOMES."

Sir,

I have followed the recent contributions to *The Veterinary Record* on the subject of sclerostomes in horses with much interest. Mr. Pillers is, I think, a little unjust to Professor Mettam in many of his comments. Prof. Mettam had found what appeared to him to be an interesting parasite and his intention in publishing a brief account (A. E. Mettam A New (?) Sclerostome of the Horse, *The Veterinary Record*, Oct. 8th, 1910) of it was obviously to direct the attention of the profession to a seldom observed group of helminths. Had he felt dogmatic on the subject he would doubtless have taken the less scientific and less restrained course of giving a new specific name to his find instead of inviting investigation and discussion. Although Mr. Pillers asserts (A. W. N. Pillers: The so-called Equine Sclerostomes, *The Veterinary Record*, Oct. 22nd, 1910) that "the worm has been known to science as one of the species belonging to the groups, hereafter mentioned, for at least eleven years, so that we may entirely disabuse our minds as to the probability of its being a new species" he fails to enlighten us as to how the parasite should correctly be named, and has to confess that "although during the last four years I have given a considerable amount of time to the subject, I have not yet obtained that degree of certainty which is necessary to publish my observations."

In the course of his paper Mr. Pillers reads his professional brethren a little homily on the correct method of naming and of describing these parasites in accordance with "modern" ideas. It is somewhat amusing, therefore, to find Mr. Pillers himself guilty of the use of such terms as *Cyathostomum* and *Triodontus*, which have been abandoned for about ten years by helminthologists in favour of *Cylichnostomum* and *Triodontophorus*. In "correcting" Professor Mettam he gives also the method of Schneider (1866) instead of Looss (1901) for description of the rays of the bursa.

To keep *quite* up-to-date in the many abstruse branches of Parasitology must be a very difficult if not impossible task for the busy professor, who is engaged on more urgent and practical problems, but who laments that "in other lands much useful work has been done by helminthologists, but it would appear that we are sadly behind" (A. W. N. Pillers: The Ascarides of the Domesticated Animals, *The Veterinary Record*, Sept. 10, 1910) should look to it that his own acquaintance with recent literature, even in this country, is unimpeachable.—Yours, etc.,

ROBERT T. LEIPER, M.B., F.Z.S.
Helminthologist to the London School of Tropical Medicine

A LARGE CALF.

Dear Sir,

I don't know what the record weight is for a new-born calf, but I recently was called to calve a cow which showed a slightly abnormal presentation. After getting the calf straight it took several men to pull it away, although she was a big, roomy, shorthorn dairy cow. The calf when born was quite healthy, and had only recently died, weighed 167lbs, and the length from the hoofs of the fore feet to those of the hind feet when stretched out was 7ft 8in., the head was 12in. long and 7in. between the eyes, and was a well proportioned calf in every way. If you think this worth recording you are at liberty to make any use you like of it.—Yours faithfully,

FRANK AULTON.

P.S.—I saw the calf weighed and measured and can vouchsafe for the accuracy of it. The cow though weak is is doing well now.

DOUBTFUL PROGRESS.

Sir,

I send you enclosed a cutting from *The Lancet* of the 5th November, which you may consider to be of interest to members of our profession.

One might point out that if any doubt exists as to the progress which is being made by the medical profession, and as to the good taste shown by individual members of both the medical and veterinary professions in allowing their portraits and professional biographies to be published in the volume referred to by "Slow Coach," in his letter of the 31st October, no doubt can exist regarding the rudeness and want of good taste shown in that writer's reference to the veterinary profession.—Yours faithfully,

Nov. 5. L. J. B.

To the Editor of The Lancet.

Sir,—My attention has been drawn to a pretentious volume, profusely illustrated, entitled "..... in the XX. Century, Contemporary Biographies," the name omitted being that of a southern county. I trust that this work is the first and may remain the last of the kind, for it contains names of 150 medical men, nearly all accompanied with portraits and notices, generally much in excess of that allowed in the Medical Directory, some indeed running to between 30 and 40 lines of self-commendation and genealogy. The volume ends appropriately with similar notices and portraits of veterinary surgeons and breeders of sheep.

It has been said that progress is to be sought in the north, but truly in the south our profession would seem to be moving on. Whither?—I am sir, yours faithfully,

Oct. 31st, 1910. SLOW COACH.

SOUTHERN COUNTIES VETERINARY SOCIETY.

Dear Sir,

I have been fortunate in receiving a promise from an eminent authority on veterinary surgery (who is also an hon. associate of the above Society) to perform the operation for roaring at our next meeting to be held in London on Wednesday, 7th December next.

May I be allowed the courtesy of your colums to enquire if any London or district practitioner can assist me in securing a suitable subject or subjects. If so, and they will kindly communicate with me, I shall be very grateful.—Yours faithfully, J. ALEX. TODD, Hon. Sec.

74 Chapel Road, Worthing.
November 7.

COMMUNICATIONS AND PAPERS RECEIVED:—Messrs. E. Wallis Hoare, W. J. Watt. *The Lancet.* Nov. 5.
Col. L. J. Blenkinsop, Dr. Leiper, Messrs. E. Wallis Hoare, Arnold Richardson. Nov. 12.